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OBJECTIVES: In Brazil, health insurance plans (HI) must pay for anticancer intravenous (IV) chemotherapy (CHEMO) but not for those taken by mouth (PO). Erlotinib (E) is a PO CHEMO used to treat lung cancer 2nd or 3rd line. Our aim was to establish the budgetary impact of the adoption of E, when compared to the IV competitors docetaxel (D) and pemetrexed (P) for the HI in Brazil. **METHODS:** We searched Evidencias Database for patients eligible for the use of E, in the year of 2008. This database has information from 2 million of users of 14 HI. Then, we calculated the costs of the IV chemo actually used. A simulation of the costs if E were adopted was carried out. Many different sensitivity analyses were performed, according to the line of treatment in which E was administered and the proportion changing from IV to the PO option. **RESULTS:** We found 285 records of patients that were suitable for the use of E. The cost of IV CHEMO was US$2,293,000. If E replaced the treatment for all patients, the cost would be reduced to US$1,067,000, resulting in a economy of US$1,222,000 (54%) of the total. If instead of replacing the IV option, E was used as an additional line of treatment, an increase of US$635,000 in total costs would occur. In a sensitivity analysis, that can reflect the practice, where 50% of the patients would receive E instead of P or D in 2nd line, and 30% would receive E in 3rd line, the adoption of E would result in an economy of US$295,000. **CONCLUSIONS:** The adoption of E for the treatment of lung cancer in Brazil can be cost-saving for HI.

PCN30

COMPARATIVE ANALYSIS OF COST AND RESOURCE USE AMONG PATIENTS WITH BRAIN METASTASIS BY INITIAL PRIMARY CANCER

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OBJECTIVES: To examine variation in real world health care utilization (HCU) and costs associated with management of brain metastasis (BrMts) by primary malignancy type. **METHODS:** A retrospective analysis utilized claims-data from a national health insurer, identifying patients ≥18 yrs with ≥2 claims ≥7 days apart for BrMets (ICD-9 198.3x) from January 2004 to April 2010. The index date was the date of the first BrMets claim. Continuous enrollment (CE) in the health plan for 6 months before (baseline) and 1 month after (follow-up) index date was required; <1 month follow-up was permitted if due to death. Excluding primary brain tumors, baseline CE data (1993 to the index date) was examined to identify the initial primary malignancy. HCU (inpatient stays, office, outpatient and ER visits) and all-cause per-patient per-month (PPPM) costs were examined. **RESULTS:** A total of 1031 lung and 395 breast cancer patients, and 93 with melanoma were included. Baseline Charlson comorbidity score was not significantly different. Mean age at BrRMets diagnosis was highest for lung (60yr) compared to breast cancer (55yr) and melanoma (56yr)[p-value<0.01]. Rates of HCU (events/person-month) were significantly different for melanoma, breast and lung cancer patients: 0.28 versus 0.17 and 0.24 for inpatient stays; 3.16 versus 3.87 and 3.94 for office visits; 2.84 vs. 2.69 and 2.80 for outpatient visits [p-value<0.01]. Total costs PPPM were highest for melanoma ($21,373) compared to breast ($17,933) and lung cancer ($15,199) [p-value=0.001]. Inpatient costs PPPM represented the largest portion of medical costs (44%-50%), but were not significantly different across cohorts: melanoma ($9397), breast ($8781) and lung cancer ($7628). Pharmacy costs PPPM were highest among melanoma ($1555) then breast ($737) and lung cancer ($720) [p-value <0.001]. **CONCLUSIONS:** Variation was observed in HCU and costs among BrMets patients based on initial primary tumor type. Analyses of cost studies on BrMets patients need to take this into consideration.

PCN31

SEQUENTIAL TREATMENT OF METASTATIC RENAL CELL CARCINOMA WITH TARGETED THERAPIES: ADVERSE EVENTS ASSOCIATED COSTS, FROM THE PUBLIC AND PRIVATE PERSPECTIVES IN BRAZIL

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OBJECTIVES: To estimate direct costs associated to grades 3-4 adverse events (AEs) management treatment of metastatic renal cell carcinoma (mRCC) with targeted therapies (sorafenib, sunitinib, pazopanib, bevacizumab, everolimus and temsirolimus) and to perform a comparative analysis from public and private healthcare perspectives, in Brazil. **METHODS:** A systematic literature review was conducted to identify grades 3-4 AEs related to targeted therapies. To obtain direct costs related to AEs management, procedures were created from national guidelines and expert validation. Total cost for each drug was calculated, considering a six-month time horizon. Only direct medical costs were considered, expressed in 2011 Brazilian reals (BRL). Unit costs were obtained from Brazilian official lists. As no head-to-head trials were found, indirect comparison in second-line targeted therapy was performed according to NCCN guideline for everolimus (grade 1 recommendation) versus sorafenib and sunitinib (grade 2A) and temsirolimus (grade 2B). Bevacizumab (grade 2B) was excluded as data was available only for the association with IFN. In the base case, grades 3-4 incidence rates were obtained from phase III clinical trials and varied in sensitivity analysis based on results obtained in meta-analyses or observational studies. **RESULTS:** When compared to NCCN 2A recommendation grade for second-line targeted therapy, everolimus is cost-saving in base case and sensitivity analysis: versus sorafenib, there are savings ranging from 5BRL to 717BRL and from 96BRL to 5841BRL in public and private perspectives, respectively; versus sunitinib, savings vary from 153BRL to 681BRL and from 1778BRL to 5136BRL in public and private perspectives, respectively. Everolimus was cost-saving due to easily manageable AEs and their frequencies. **CONCLUSIONS:** Considering grades 1 and 2 NCCN recommendation for mRCC second-line targeted therapies, everolimus represents the highest quality of evidence and is also considered the lowest cost option for the management of associated AEs from public and private healthcare perspectives, in Brazil.

PCN32

COST SAVINGS WITH BEVACIZUMAB COMPARED TO SUNITINIB IN THE TREATMENT OF MRCC

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OBJECTIVES: Assessing the adverse events costs of comparable regimens (sunitinib vs bevacizumab) in context of budget impact analysis in Croatian setting. **METHODS:** Authors have assessed costs and outcomes of bevacizumab and sunitinib via systematic review, performed in January 2011. Survival rates, incidence and prevalence was assessed via Croatian National Cancer Registry, and the model was verified with Monte Carlo simulations. Direct drug, adverse events and treatment costs were calculated in kuna/per patient yearly according to price listings of National Institute for Health Insurance. Local data was verified with structured interviews gathered with Croatian oncologists (N=6) involved in this indication in their daily practice. Focus of the analysis was the drug cost and the adverse events treatment cost. **RESULTS:** Sunitinib has showed costly side effects such as neutropenia, trombocitopenia, hypothiroidism and cardiovascular complications. The cost of adverse events (aforementioned) for sunitinib per patient yearly is 3.904 HRK (535 EUR), whereas for bevacizumab is 1.404 HRK (192 EUR). Bevacizumab demonstrated significantly lower adverse events costs than sunitinib. Overall budget impact (from payers perspective) when bevacizumab is introduced equals -29.753,52 HRK (-4075 EUR) of savings yearly per patient. **CONCLUSIONS:** At current costs, head to head drug price comparison demonstrates that bevacizumab is less costly, demonstrating dominant ability to reduce costs due to less frequent and less costly adverse events, whereas in budget impact context introducing bevacizumab brings savings.

PCN33

COST ANALYSIS: TREATMENT OF CHEMOTHERAPY-INDUCED ANAEMIA WITH ERYTHROPOIESIS-STIMULATING AGENTS (ESAS) IN SPAIN

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OBJECTIVES: Spaepen et al. (The Oncologist 2008;13:596–607) published a cost analysis comparing darbepoetin-alfa (DARB), epoetin-alfa (EPO-A) and epoetin-beta (EPO-B) in the treatment of chemotherapy-induced anaemia in 2393 patients. Data were derived from the IMS Hospital Disease Database, a longitudinal database in secondary care unique to Belgium. The objectives of this study were to assess the applicability of that analysis in the Spanish setting, and to evaluate differences in cost between ESAs in Spain. **METHODS:** To adapt the Belgian data for Spain, discrepancies in epidemiology and treatment patterns were examined, and costs were replaced with Spanish-specific unit costs. Adjusting for tumour-specific incidence and chemotherapy use, costs were analyzed using a mixed-effects model stratifying for propensity score quintiles as in Spaepen 2008. Data sources included Eurostat, national cancer registries, IMS sales data, treatment guidelines, and reimbursement guidelines and lists. **RESULTS:** The Spanish and Belgian populations were similar in terms of age, gender, ESA use and blood transfusions. Adjusting for chemotherapy use and the relative weight (incidence Spain/ incidence Belgium) of four pre-specified cancer types [haematological (1.2094), lung (0.6716), female breast (0.5654) and female genital (0.9589)], total costs (mean±SE) with DARB were 26% lower compared with EPO-A (p<0.0001) and 20% lower compared with EPO-B (p=0.0019). Anaemia-related costs were 29% and 17% lower in DARB patients than in EPO-A (p<0.0001) and EPO-B (p=0.0226) respectively. The mean duration of treatment was 40.63±2.39 days for DARB; 53.59±1.25 for EPO-A and 52.39±2.54 for EPO-B. **CONCLUSIONS:** By using published epidemiologic and treatment pattern data, it was possible to adapt the Belgian Hospital database to the Spanish population. Total and anaemia-related costs were lowest in patients receiving DARB compared with EPO-A or EPO-B. These findings are consistent with those from the Belgian analysis.

PCN34

COST ANALYSIS OF ANEMIA TREATMENT WITH ERYTHROPOIESIS-STIMULATING AGENTS (ESAS) IN CANCER PATIENTS RECEIVING CHEMOTHERAPY IN ITALY

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OBJECTIVES: Spaepen et al. (the Oncologist 2008;13:596–607) published a cost-analysis comparing darbepoetin-alfa (DARB), epoetin-alfa (EPO-A) and epoetin-beta (EPO-B) in the treatment of chemotherapy-induced anaemia, using propensity score matching. The study was performed using IMS Hospital Disease Database (2003-2005, a longitudinal database unique to Belgium containing individual patient/admission-level data on diagnoses, procedures, and pharmaceuticals. Given